I claim:

1. An elongated implantable medical electrical lead for electrically stimulating a human heart or sensing electrical signals originating therefrom, comprising:

(a) a lead body having proximal and distal sections;

(b) at least one electrode for sensing or electrically stimulating the heart;

(c) a proximal end comprising an electrical connector, the electrical connector being contiguous with the proximal section of the lead body;

(d) a distal end contiguous with the distal section of the lead body;

(e) at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector;

wherein the distal section of the lead body comprises at least first and second segments, the first segment having a bending stiffness S_{bs} which exceeds the bending stiffness S_{bf} of the second segment, the first and second segments being configured and dimensioned to impart a distally directed force to the distal end of the lead when the first and second segments are subjected to a bending moment resulting in a sufficient curvature of the distal section of the lead body.

2. The medical electrical lead of claim 1, wherein the ratio of the bending stiffness of the first segment (S_{bs}) in respect of the second segment (S_{bf}) is defined by the equation:

$$1.5 \leq \frac{S_{bs}}{S_{bf}} \leq 100$$

3. The medical electrical lead of claim 1, wherein the ratio of the bending stiffness of the first segment (S_{bs}) in respect of the second segment (S_{bf}) is defined by the equation:

$$1.5 \leq \frac{S_{bs}}{S_{bf}} \leq 20$$

4. The medical electrical lead of claim 1, wherein the ratio of the bending stiffness of the first segment (S_{bs}) in respect of the second segment (S_{bf}) is defined by the equation:

$$1.5 \leq \frac{S_{bs}}{S_{bf}} \leq 10$$

5. The medical electrical lead of claim 1, wherein the ratio of the bending stiffness of the first segment (S_{bs}) in respect of the second segment (S_{bf}) is defined by the equation:

$$2 \leq \frac{S_{bs}}{S_{bf}} \leq 6$$

6. The medical electrical lead of claim 1, wherein the bending stiffness of the first segment (S_{bs}) is at least 1.5 times that of the bending stiffness of the second segment (S_{bf}).

7. The medical electrical lead of claim 1, wherein the bending stiffness of the first segment (S_{bs}) is at least 1.8 times that of the bending stiffness of the second segment (S_{bf}).

8. The medical electrical lead of claim 1, wherein the bending stiffness of the first segment (S_{bs}) is at least about 2 times that of the bending stiffness of

the second segment (S_{bf}).

9. The medical electrical lead of claim 1, wherein the bending stiffness of the first segment (S_{bs}) is at least about 4 times that of the bending stiffness of the second segment (S_{bf}).

10. The medical electrical lead of claim 1, wherein the bending stiffness of the first segment (S_{bs}) is at least about 6 times that of the bending stiffness of the second segment (S_{bf}).

11. The medical electrical lead of claim 1, wherein the ratio of the bending stiffness of the first segment (S_{bs}) in respect of the second segment (S_{bf}) is selected from the group consisting of at least about 2.2, at least about 2.4, at least about 2.6, at least about 2.8, at least about 3.0, at least about 4, at least about 5, at least about 6, at least about 7, at least about 8, at least about 9, at least about 10, at least about 20, at least about 30, at least about 40, at least about 50, and at least about 100.

12. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a plurality of alternating series of substantially adjoining first and second segments.

13. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a third segment having a bending stiffness which exceeds the bending stiffness of the second segment, the second segment being disposed between the first and third segments.

14. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a third segment having a bending stiffness which is less

than the bending stiffness of the first segment, the first segment being disposed between the second and third segments.

15. The medical electrical lead of claim 1, wherein the bending stiffness of the distal section of the lead body increases distally in one of step-wise, monotonic, exponential or logarithmic fashion.

16. The medical electrical lead of claim 1, wherein the bending stiffness of the distal section of the lead body decreases distally in one of step-wise, monotonic, exponential or logarithmic fashion.

17. The medical electrical lead of claim 1, wherein the lengths of the first and second segments are selected according to a particular venous anatomy in which the lead is to be implanted.

18. The medical electrical lead of claim 1, wherein the lead assumes a substantially straight shape prior to implantation.

19. The medical electrical lead of claim 1, wherein the lead body has at least one pre-formed curve disposed therein.

20. The medical electrical lead of claim 1, wherein the distal section of the lead body is formed into a curved configuration.

21. The medical electrical lead of claim 1, wherein the distal section of the lead body and the first and second sections thereof are dimensioned and configured for use in a coronary sinus or cardiac vein of the heart.

22. The medical electrical lead of claim 1, wherein a fixation device is

attached to the lead body.

23. The medical electrical lead of claim 22, wherein the fixation device is selected from the group consisting of a helical screw, a barb, a hook, at least one tine, and at least one arm.

24. The medical electrical lead of claim 22, wherein the fixation device is disposed near the distal end.

25. The medical electrical lead of claim 1, wherein the at least one electrode is located along the distal section of the lead body at a location appropriate to locate the electrode adjacent the left atrium or left ventricle of the heart.

26. The medical electrical lead of claim 1, wherein the lead, the at least one electrode, and the first and second segments are configured and dimensioned to form a single pass lead for dual chamber pacing of a left atrium and a left ventricle via implantation within a coronary sinus and a great cardiac vein of the heart.

27. The medical electrical lead of claim 1, wherein the lead body is configured to permit preferential bending thereof along at least one pre-determined bending plane.

28. The medical electrical lead of claim 1, wherein the lead body is configured to permit three dimensional bending thereof along at least two pre-deteremined bending planes.

29. The medical electrical lead of claim 1, wherein the bending stiffness of

at least one of the first segment and the second segment is rotationally symmetric.

30. The medical electrical lead of claim 1, wherein the bending stiffness of at least one of the first segment and the second segment is rotationally asymmetric.

31. The medical electrical lead of claim 30, wherein the at least one electrode and the lead body are dimensioned and configured such that when the lead is appropriately implanted within a venous portion of the heart the rotationally asymmetric segment may be employed by a physician to orient placement of the at least one electrode such that the electrode is pressed against or directed towards a selected portion of the heart.

32. The medical electrical lead of claim 1, wherein the lead has a unipolar electrode configuration.

33. The medical electrical lead of claim 1, wherein the lead has a multi-polar electrode configuration.

34. The medical electrical lead of claim 1, wherein the lead further comprises at least one defibrillation electrode.

35. The medical electrical lead of claim 34, wherein the at least one defibrillation electrode is one of a coil electrode and a ring electrode.

36. The medical electrical lead of claim 1, wherein the lead comprises pacing and defibrillation electrodes.

37. The medical electrical lead of claim 1, wherein the lead body is configured and dimensioned such that when the lead is implanted within a venous portion of the human heart the second segment is located in portions of the venous portion which exhibit the greatest curvature.

38. The medical electrical lead of claim 37, wherein the bending stiffness of the lead body increases both proximally and distally in respect of the second segment.

39. The medical electrical lead of claim 1, wherein the second segment is disposed proximally from the first segment, the first and second segments are contiguous with one another along a junction, and the junction is located along the lead body at an axial position such that when the lead is implanted within a venous anatomy of the human heart the junction is located near an end of a curve in the venous anatomy.

40. The medical electrical lead of claim 1, wherein the lead body comprises a first asymmetric cross-section configured for implantation in a first preferred orientation in pre-determined distal-most portions of the heart's venous anatomy where bending radii are small, a second asymmetric cross-section configured for implantation in a second preferred orientation different from the first orientation in pre-determined portions of the heart's venous anatomy located proximal from the distal-most portions thereof.

41. The medical electrical lead of claim 1, wherein the bending stiffness of a proximal portion of the distal section of the lead body increases distally and wherein the proximal portion of the distal section of the lead body is configured and dimensioned such that the proximal portion of the distal section of the lead body is located in a right atrium and a coronary sinus of

the heart upon implantation.

42. The medical electrical lead of claim 41, wherein a length of the proximal portion of the distal section of the lead body is selected from the group consisting of between about 5 cm and about 15 cm, about 10 cm, between about 2 cm and about 17 cm, between about 7 cm and about 13 cm, and between about 9 cm and about 11 cm.

43. The medical electrical lead of claim 1, wherein the lead body comprises a material selected from the group consisting of silicone rubber, polyurethane, PEBAX, PTFE, and ETFE.

44. The medical electrical lead of claim 1, wherein the first and second segments comprise means for changing the bending stiffness of the lead body as a function of axial distance selected from the group consisting of coils having variable pitch as a function of axial distance, coils having variable winding as a function of axial distance, coils having variable diameter as a function of axial distance, coils having variable pitch as a function of axial distance, the lead body having variable diameter as a function of axial distance, progressively adding more material to the lead body as a function of axial distance, adding more coils to the lead body as a function of axial distance, varying lead body insulation thickness as a function of axial distance, varying lead body insulation type as a function of axial distance, progressively incorporating more ring-shaped members into the lead body as a function of axial distance, varying electrode structure as a function of axial distance, varying electrode positioning as a function of axial distance, including members having changing bending stiffness along an outside portion of the lead body, disposing a member internally in the lead body having variable thickness as a function of axial distance, flattening portions of

the lead body, and incorporating depressions into the lead body.

45. The medical electrical lead of claim 1, wherein the first and second segments comprise means for changing the bending stiffness of the lead body as a function of axial distance x selected from the group consisting of varying the bending modulus as a function of axial distance x of the material from which the lead body is formed, varying the density as a function of axial distance x of the material from which the lead body is formed, varying the composition as a function of axial distance x of a polymer from which the lead body is formed, varying the amount of cross-linking as a function of axial distance x in a polymer from which the lead body is formed, varying the flexule moduli as a function of axial distance x of the material from which the lead body is formed, varying the amount of a first polymer included, blended or mixed in a second polymer as a function of axial distance x, a shape-memory alloy member capable of having its bending stiffness be varied through selective activation of pre-determined portions thereof as a function of axial distance x, varying the composition of polymers included in the lead body as a function of axial distance x.

46. The medical electrical lead of claim 1, wherein the lead body is configured and dimensioned such that when the lead is implanted within the heart the first segment is disposed in a distal portion of one of a great cardiac vein, a middle cardiac vein, a coronary sinus, a small cardiac vein, a posterior cardiac vein, an oblique left atrial vein, and an anterior cardiac vein.

47. The medical electrical lead of claim 1, wherein the lead body is configured and dimensioned such that when the lead is implanted within the heart the second segment is disposed in a distal portion of one of a great cardiac vein, a middle cardiac vein, a coronary sinus, a small cardiac vein, a

posterior cardiac vein, an oblique left atrial vein, and an anterior cardiac vein.

48. The medical electrical lead of claim 1, wherein the lead body and the at least one electrode are configured and dimensioned such that when the lead is appropriately implanted within a great cardiac vein or a posterior cardiac vein of the heart a left ventricle of the heart may be electrically stimulated.

49. The medical electrical lead of claim 1, wherein the lead body and the at least one electrode are configured and dimensioned such that when the lead is appropriately implanted within an oblique left atrail vein of the heart a left atrium of the heart may be electrically stimulated.

50. The medical electrical lead of claim 1, wherein the lead body and the at least one electrode are configured and dimensioned such that when the lead is appropriately implanted within a middle portion of a great cardiac vein a right ventricle of the heart may be electrically stimulated.

51. The medical electrical lead of claim 1, wherein the lead body and the at least one electrode are configured and dimensioned such that when the lead is appropriately implanted within an anterior cardiac vein a left atrium of the heart may be electrically stimulated.

52. The medical electrical lead of claim 1, wherein the lead body and the at least one electrode are configured and dimensioned such that when the lead is appropriately implanted within an anterior cardiac vein a left ventricle of the heart may be electrically stimulated.

53. The medical electrical lead of claim 1, wherein the at least one electrode further comprises an anode and a cathode, and wherein the lead

body and the anode and the cathode are configured and dimensioned such that when the lead is appropriately implanted within a middle cardiac vein electrical stimulation of apical portions of the heart may be effected.

54. The medical electrical lead of claim 1, wherein the at least one electrode further comprises an anode and a cathode, and wherein the lead body and the anode and the cathode are configured and dimensioned such that when the lead is appropriately implanted within a posterior cardiac vein electrical stimulation of basal portions of the heart may be effected.

55. The medical electrical lead of claim 1, wherein the at least one electrode further comprises an anode and a cathode, and wherein the lead body and the anode and the cathode are configured and dimensioned such that when the lead is appropriately implanted within a great cardiac vein electrical stimulation of basal portions of the heart may be effected.

56. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a plurality of alternating first segments and second segments.

57. The medical electrical lead of claim 1, wherein at least one of the first segment and the second segment has a length selected from the group consisting of about 8 mm, between about 5mm and about 10 mm, between about 5mm and about 12 mm, and between about 5mm and about 50 mm.

58. The medical electrical lead of claim 1, wherein the distal end is tapered.

59. The medical electrical lead of claim 1, wherein at least a portion of the

lead body has an outer diameter selected from the group consisting of between about 1 mm and about 2 mm, about 0.5 mm, about 3 mm, and exceeding 3 mm.

60. The medical electrical lead of claim 1, wherein the at least one electrode is disposed in the first segment.

61. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a plurality of alternating first segments and second segments and the at least one electrode further comprises a cathode and an anode, the anode and the cathode being disposed on different first segments.

62. The medical electrical lead of claim 1, wherein the at least one electrode further comprises a cathode and an anode, the anode and the cathode being disposed on the first segment.

63. The medical electrical lead of claim 1, wherein the at least one electrode further comprises a cathode and an anode, the anode and the cathode being separated from one another along the lead body by a distance selected from the group consisting of between about 4 mm and about 12 mm, between about 5 mm and about 10 mm, between about 5 mm and about 7 mm, and about 5 mm, between about 20 mm and about 50 mm, about 60 mm, and about 15 mm.

64. The medical electrode of claim 1, wherein the lead body further comprises a lumen formed therein for accepting a stylet.

65. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a plurality of first and second segments, the first and

second segments being configured and dimensioned such that the lead body exhbits a number of different minimum mechanical energy storage positions the lead body may assume within a venous anatomy of a patient.

66. The medical electrical lead of claim 65, wherein the first and second segments have first and second lengths, and wherein the first and second lengths are selected according to the radii of different venous curves which are anticipated to be encountered when the lead is implanted within the heart.

67. The medical electrical lead of claim 1, wherein the distal section of the lead body comprises a plurality of first and second segments having first and second lengths, respectively, and wherein the second segments are configured and dimensioned to be located in or along at least a first curve having a first radius of curvature in a venous anatomy of the heart, and wherein the first segments are configured and dimensioned to be located in or along a second curve having a second radiusof curvature, the first radius being smaller than the second radius.

68. An elongated implantable medical electrical lead for electrically stimulating a human heart or sensing electrical signals originating therefrom, comprising:

(a) an elongated lead body comprising proximal and distal sections, the elongated lead body defining axial distances which increase distally;

(b) at least one electrode for sensing or electrically stimulating the heart;

(c) a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body;

(d) a distal end portion contiguous with the distal section of the lead body, the distal end portion extending distally from the distal section of the lead body;

(e) at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector;

wherein the distal section of the lead body further comprises a variable bending stiffness portion having bending stiffnesses which increase in respect of axial distance.

69. The medical electrical lead of claim 68, wherein the ratio of the bending stiffness of a distal-most portion of the distal section (S_{bs}) in respect of the bending stiffness of a proximal-most portion of the distal section (S_{bf}) is defined by the equation:

$$1.5 \leq \frac{S_{bs}}{S_{bf}} \leq 100$$

70. The medical electrical lead of claim 68, wherein the ratio of the bending stiffness of a distal-most portion of the distal section (S_{bs}) in respect of the bending stiffness of a proximal-most portion of the distal section (S_{bf}) is defined by the equation:

$$1.5 \leq \frac{S_{bs}}{S_{bf}} \leq 10$$

71. The medical electrical lead of claim 65, wherein the bending stiffness of a distal-most portion of the distal section (S_{bs}) is greater than the bending stiffness of a proximal-most portion of the distal section (S_{bf}) by a factor of at least about 2.

72. The medical electrical lead of claim 65, wherein the bending stiffness

of the distal section of the lead body increases distally in one of step-wise, monotonic, exponential or logarithmic fashion.

73. The medical electrical lead of claim 65, wherein the lead assumes a substantially straight shape prior to implantation.

74. The medical electrical lead of claim 65, wherein the distal section of the lead body is formed into a curved configuration.

75. The medical electrical lead of claim 65, wherein the distal section of the lead body is dimensioned and configured for implantation within a coronary sinus or cardiac vein of the heart.

76. The medical electrical lead of claim 65, wherein a fixation device is attached to the lead body.

77. The medical electrical lead of claim 76, wherein the fixation device is selected from the group consisting of a helical screw, a barb, a hook, at least one tine, and at least one arm.

78. The medical electrical lead of claim 65, wherein the at least one electrode is located along the distal section of the lead body at a location appropriate to locate the electrode adjacent the left atrium or left ventricle of the heart.

79. The medical electrical lead of claim 65, wherein the lead, the at least one electrode, and distal section of the lead body are configured and dimensioned to form a single pass lead for dual chamber pacing of a left atrium and a left ventricle via implantation within a coronary sinus and a great

cardiac vein of the heart.

80. The medical electrical lead of claim 65, wherein the lead body is configured to permit preferential bending thereof along at least one pre-determined bending plane.

81. The medical electrical lead of claim 65, wherein the bending stiffness of the distal section of the lead body is rotationally symmetric.

82. The medical electrical lead of claim 65 wherein the bending stiffness of the distal section of the lead body is rotationally asymmetric.

83. The medical electrical lead of claim 82, wherein the at least one electrode and the lead body are dimensioned and configured such that when the lead is appropriately implanted within a venous portion of the heart the rotationally asymmetric segment may be employed by a physician to orient placement of the at least one electrode such that the electrode is pressed against or directed towards a selected portion of the heart.

84. The medical electrical lead of claim 65, wherein the lead has a unipolar electrode configuration.

85. The medical electrical lead of claim 65, wherein the lead has a multi-polar electrode configuration.

86. The medical electrical lead of claim 65, wherein the lead further comprises at least one defibrillation electrode.

87. The medical electrical lead of claim 65, wherein the lead body further

comprises a first asymmetric cross-section configured for implantation in a first preferred orientation in pre-determined distalmost portions of the heart's venous anatomy where bending radii are small, and a second asymmetric cross-section configured for implantation in a second preferred orientation different from the first orientation in pre-determined portions of the heart's venous anatomy located proximal from the distalmost portions thereof.

88. The medical electrical lead of claim 65, wherein the distal section of the lead body comprises means for changing the bending stiffness of the lead body as a function of axial distance selected from the group consisting of coils having variable pitch as a function of axial distance, coils having variable winding as a function of axial distance, coils having variable diameter as a function of axial distance, coils having variable pitch as a function of axial distance, the lead body having variable diameter as a function of axial distance, progressively adding more material to the lead body as a function of axial distance, adding more coils to the lead body as a function of axial distance, varying lead body insulation thickness as a function of axial distance, varying lead body insulation type as a function of axial distance, progressively incorporating more ring-shaped members into the lead body as a function of axial distance, varying electrode structure as a function of axial distance, varying electrode positioning as a function of axial distance, including members having changing bending stiffness along an outside portion of the lead body, disposing a member internally in the lead body having variable thickness as a function of axial distance, flattening portions of the lead body, and incorporating depressions into the lead body.

89. The medical electrical lead of claim 65, wherein the distal section of the lead body comprises means for changing the bending stiffness of the lead body as a function of axial distance x selected from the group consisting of

varying the bending modulus as a function of axial distance x of the material from which the lead body is formed, varying the density as a function of axial distance x of the material from which the lead body is formed, varying the composition as a function of axial distance x of a polymer from which the lead body is formed, varying the amount of cross-linking as a function of axial distance x in a polymer from which the lead body is formed, varying the flexule moduli as a function of axial distance x of the material from which the lead body is formed, varying the amount of a first polymer included, blended or mixed in a second polymer as a function of axial distance x, a shape-memory alloy member capable of having its bending stiffness be varied through selective activation of pre-determined portions thereof as a function of axial distance x, varying the composition of polymers included in the lead body as a function of axial distance x.

90. The medical electrical lead of claim 65, wherein the distal section of the lead body has a length selected from the group consisting of about 8 mm, between about 5mm and about 10 mm, between about 5mm and about 12 mm, and between about 5mm and about 50 mm.

91. The medical electrical lead of claim 65, wherein the distal end portion is tapered.

92. The medical electrical lead of claim 65, wherein at least a portion of the lead body has an outer diameter selected from the group consisting of between about 1 mm and about 2 mm, about 0.5 mm, about 3 mm, and exceeding 3 mm.

93. The medical electrical lead of claim 65, wherein the at least one electrode further comprises a cathode and an anode.

94. The medical electrical lead of claim 65, wherein the at least one electrode further comprises a cathode and an anode, the anode and the cathode being separated from one another along the lead body by a distance selected from the group consisting of between about 4 mm and about 12 mm, between about 5 mm and about 10 mm, between about 5 mm and about 7 mm, and about 5 mm, between about 20 mm and about 50 mm, about 60 mm, and about 15 mm.

95. The medical electrode of claim 65, wherein the lead body further comprises a lumen formed therein for accepting a stylet.

96. A system for electrically stimulating, or sensing electrical signals originating from, a human heart, the system comprising:

(a) an implantable cardiac stimulator, and

(b) an elongated implantable medical electrical lead for electrically stimulating the heart or sensing electrical signals originating therefrom, comprising:

(i) a lead body having proximal and distal sections;

(ii) at least one electrode for sensing or electrically stimulating the heart;

(iii) a proximal end comprising an electrical connector, the electrical connector being contiguous with the proximal section of the lead body, the electrical connector being configured for operative attachment to the cardiac stimulator;

(iv) a distal end contiguous with the distal section of the lead body;

(v) at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the

conductor being operatively connected to the electrical connector;

wherein the distal section of the lead body comprises at least first and second segments, the first segment having a bending stiffness S_{bs} which exceeds the bending stiffness S_{bf} of the second segment, the first and second segments being configured and dimensioned to impart a distally directed force to the distal end of the lead when the first and second segments are subjected to a bending moment resulting in a sufficient curvature of the distal section of the lead body.

97. The system of claim 96, wherein the cardiac stimulator is selected from the group consisting of a pacemaker, an implantable pulse generator (IPG), an implantable cardioverter-defibrillator (ICD), a pacer-cardioverter-defibrillator (PCD), and an implantable defibrillator.

98. A system for electrically stimulating, or sensing electrical signals originating from, a human heart, the system comprising:

(a) an implantable cardiac stimulator, and

(b) an elongated implantable medical electrical lead for electrically stimulating the heart or sensing electrical signals originating therefrom, comprising:

(i) an elongated lead body comprising proximal and distal sections, the elongated lead body defining axial distances which increase distally;

(ii) at least one electrode for sensing or electrically stimulating the heart;

(iii) a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body;

(iv) a distal end portion contiguous with the distal section of the lead body, the distal end portion extending distally from the distal section of the lead body;

(v) at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector;

wherein the distal section of the lead body further comprises a variable bending stiffness portion having bending stiffnesses which increase in respect of axial distance.

99. The system of claim 98, wherein the cardiac stimulator is selected from the group consisting of a pacemaker, an implantable pulse generator (IPG), an implantable cardioverter-defibrillator (ICD), a pacer-cardioverter-defibrillator (PCD), and an implantable defibrillator.

100. A method of electrically stimulating a patient's heart with an implantable cardiac stimulator and an elongated implantable medical electrical lead, the lead comprising a lead body having proximal and distal sections, at least one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the electrical connector being contiguous with the proximal section of the lead body, the electrical connector being configured for operative attachment to the cardiac stimulator, a distal end contiguous with the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, the distal section of the lead body comprising at least first and second segments, the first

segment having a bending stiffness S_{bs} which exceeds the bending stiffness S_{bf} of the second segment, the first and second segments being configured and dimensioned to impart a distally directed force to the distal end of the lead when the first and second segments are subjected to a bending moment resulting in a sufficient curvature of the distal section of the lead body, the method comprising:

(a) providing the cardiac stimulator;

(b) providing the medical electrical lead;

(c) transvenously inserting and positioning the lead through a coronary sinus and into a coronary vein in the the heart,

(d) operatively connecting the connector of the lead to the cardiac stimulator; and

(e) delivering at least one electrical pulse originating in the cardiac stimulator through the lead and the at least one electrode to the heart.

101. The method of claim 100, wherein the at least one electrical pulse is a pacing pulse, the method further comprising delivering a pacing pulse to the heart.

102. The method of claim 100, wherein the at least one electrical pulse is a defibrillation pulse, the method further comprising delivering a pacing pulse to the heart.

103. The method of claim 100, the method further comprising employing a stylet when inserting and positioning the lead in the heart.

104. The method of claim 100, the method further comprising employing a guide catheter when introducing the lead into the coronary sinus.

105. The method of claim 100, the method further comprising removing the guide

catheter after the lead has been inserted through the coronary sinus.

106. A method of electrically stimulating a patient's heart with an implantable cardiac stimulator and an elongated implantable medical electrical lead, the lead comprising an elongated lead body comprising proximal and distal sections, the elongated lead body defining axial distances which increase distally, at least one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body, a distal end portion contiguous with the distal section of the lead body, the distal end portion extending distally from the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, the distal section of the lead body further comprising a variable bending stiffness portion having bending stiffnesses which increase in respect of axial distance, the method comprising:

(a) providing the cardiac stimulator;

(b) providing the medical electrical lead;

(c) transvenously inserting and positioning the lead through a coronary sinus and into a coronary vein in the the heart,

(d) operatively connecting the connector of the lead to the cardiac stimulator; and

(e) delivering at least one electrical pulse originating in the cardiac stimulator through the lead and the at least one electrode to the heart.

107. The method of claim 106, wherein the at least one electrical pulse is a pacing pulse, the method further comprising delivering a pacing pulse to the heart.

108. The method of claim 106, wherein the at least one electrical pulse is a defibrillation pulse, the method further comprising delivering a pacing pulse to the heart.

109. The method of claim 106, the method further comprising employing a stylet when inserting and positioning the lead in the heart.

110. The method of claim 106, the method further comprising employing a guide catheter when introducing the lead into the coronary sinus.

111. The method of claim 110, the method further comprising removing the guide catheter after the lead has been inserted through the coronary sinus.

112. A method of electrically stimulating a patient's heart with an implantable cardiac stimulator and an elongated implantable medical electrical lead, the lead comprising a lead body having proximal and distal sections, at least one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body, a distal end connected to the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, the distal section of the lead body comprising at least first and second segments, the first segment having a bending stiffness S_{b1}, the second segment having a bending stiffness S_{b2}, S_{b1} not equalling S_{b2}, the first segment, and the second segment being configured and characterized such that a distally directed force is imparted to the distal end of the lead when the first and second segments are subjected to a bending moment resulting in a sufficient

curvature of the distal section of the lead body, the bending moment being provided by an external force applied to the lead, the method comprising:

(a) providing the cardiac stimulator;

(b) providing the medical electrical lead;

(c) transvenously inserting and positioning the lead through a coronary sinus and into a coronary vein in the the heart,

(d) operatively connecting the connector of the lead to the cardiac stimulator; and

(e) delivering at least one electrical pulse originating in the cardiac stimulator through the lead and the at least one electrode to the heart.

113. The method of claim 112, wherein the at least one electrical pulse is a pacing pulse, the method further comprising delivering a pacing pulse to the heart.

114. The method of claim 112, wherein the at least one electrical pulse is a defibrillation pulse, the method further comprising delivering a pacing pulse to the heart.

115. The method of claim 112, the method further comprising employing a stylet when inserting and positioning the lead in the heart.

116. The method of claim 112, the method further comprising employing a guide catheter when introducing the lead into the coronary sinus.

117. The method of claim 116, the method further comprising removing the guide catheter after the lead has been inserted through the coronary sinus.

118. A method of making an elongated implantable medical electrical lead, the lead comprising a lead body having proximal and distal sections, at least

one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the electrical connector being contiguous with the proximal section of the lead body, the electrical connector being configured for operative attachment to the cardiac stimulator, a distal end contiguous with the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, the distal section of the lead body comprising at least first and second segments, the first segment having a bending stiffness S_{bs} which exceeds the bending stiffness S_{bf} of the second segment, the first and second segments being configured and dimensioned to impart a distally directed force to the distal end of the lead when the first and second segments are subjected to a bending moment resulting in a sufficient curvature of the distal section of the lead body, the method comprising:

(a) providing the at least one electrode;

(b) providing the at least one electrical conductor;

(c) providing the electrical connector;

(d) operatively connecting the electrical connector to the proximal end of the electrical conductor;

(e) operatively connecting the distal end of the electrical conductor to the at least one electrode;

(f) providing the lead body; and

(g) incorporating the at least one electrical conductor, the at least one electrode, the electrical connector and the lead body into the lead.

119. A method of making an elongated implantable medical electrical lead, the lead comprising an elongated lead body comprising proximal and distal sections, the elongated lead body defining axial distances which increase

distally, at least one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body, a distal end portion contiguous with the distal section of the lead body, the distal end portion extending distally from the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, the distal section of the lead body further comprising a variable bending stiffness portion having bending stiffnesses which increase in respect of axial distance, the method comprising:

(a) providing the at least one electrode;

(b) providing the at least one electrical conductor;

(c) providing the electrical connector;

(d) operatively connecting the electrical connector to the proximal end of the electrical conductor;

(e) operatively connecting the distal end of the electrical conductor to the at least one electrode;

(f) providing the lead body; and

(g) incorporating the at least one electrical conductor, the at least one electrode, the electrical connector and the lead body into the lead.

120. A method of making an elongated implantable medical electrical lead, the lead comprising a lead body having proximal and distal sections, at least one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body, a distal end connected to the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at

least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, wherein the distal section of the lead body comprises at least first and second adjoining segments, the first segment being relatively stiff, the second segment being relatively flexible, the first and second segments being configured to impart a distally directed force to the distal end of the lead when the segments are subjected to a bending moment resulting in a sufficient curvature of the distal section of the lead body, the method comprising:

(a) providing the at least one electrode;

(b) providing the at least one electrical conductor;

(c) providing the electrical connector;

(d) operatively connecting the electrical connector to the proximal end of the electrical conductor;

(e) operatively connecting the distal end of the electrical conductor to the at least one electrode;

(f) providing the lead body; and

(g) incorporating the at least one electrical conductor, the at least one electrode, the electrical connector and the lead body into the lead.

121. A method of making an elongated implantable medical electrical lead, the lead comprising a lead body having proximal and distal sections, at least one electrode for sensing or electrically stimulating the heart, a proximal end comprising an electrical connector, the connector being contiguous with the proximal section of the lead body, a distal end connected to the distal section of the lead body, at least one electrical conductor having proximal and distal ends, the distal end of the conductor being operatively connected to the at least one electrode, the proximal end of the conductor being operatively connected to the electrical connector, the distal section of the lead body comprising at least first and second segments, the first segment having a

bending stiffness S_{b1}, the second segment having a bending stiffness S_{b2}, S_{b1} not equalling S_{b2}, the first segment and the second segment being configured and characterized such that a distally directed force is imparted to the distal end of the lead when the first and second segments are subjected to a bending moment resulting in a sufficient curvature of the lead body, the bending moment being provided by an external force applied to the lead, the method comprising:

(a) providing the at least one electrode;

(b) providing the at least one electrical conductor;

(c) providing the electrical connector;

(d) operatively connecting the electrical connector to the proximal end of the electrical conductor;

(e) operatively connecting the distal end of the electrical conductor to the at least one electrode;

(f) providing the lead body; and

(g) incorporating the at least one electrical conductor, the at least one electrode, the electrical connector and the lead body into the lead.